A STUDY OF THE USE OF A PERFORMANCE BASED ASSESSMENT TOOL TO ENHANCE THE PROFESSIONAL LANGUAGE DEVELOPMENT OF BEGINNING TEACHERS

MASTER'S THESIS

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Dedication

This research project is dedicated to my wonderful family who has supported me from the beginning to the end! Thanks for hanging in there with me. A special thank you to my husband Greg. You now get your turn at the computer and your share of milk and cookies in the late hours of the night! I love you all!

A very special thank you to both Dr. Jim Rowley and Dr. Patricia Hart who have supported me through both my undergraduate and graduate work at the University of Dayton. You have shown me that there really is a light at the end of the tunnel. Thanks for standing there, encouraging me to keep going. On that twenty-six mile marathon, I finally crossed the finish line!!
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CHAPTER ONE

INTRODUCTION TO THE PROBLEM

In 1996, changes were initiated that will, over the next few years, dramatically affect entry-year teachers in Ohio, as well as many other states. Such changes are occurring as state legislatures and departments of education mandate new standards for the licensing of novice teachers and implement new policies and procedures governing the processes by which one gains entry to the teaching profession. At the time of this writing, the Ohio legislature had recently approved new standards governing teacher development including the adoption of a performance based, “residency year” program for beginning teachers that must be successfully completed before a new teacher can be awarded a professional license.

The new standards also include many changes in the system by which veteran teachers acquire and renew their teaching licenses. Simply put, for beginning and veteran teachers alike, the new standards represent significant change in the process of teacher career development. Relative to the licensing of new teachers, for example, Ohio will adopt a process of assessing beginning teachers that goes beyond pencil and paper assessments to include performance-based evaluations conducted during the new teacher’s entry-year.

In the past, pre-service teachers in Ohio have taken two pencil and paper tests as a measure of their developing professional competence, both tests have been developed by the Educational Testing Service (ETS) of
Princeton, New Jersey. PRAXIS I (previously known as the Pre-professional Skills test or PPST) is a test that many universities use as a measure of determining students' basic competency in reading, writing, and mathematics. Typically taken in the sophomore year, PRAXIS I is frequently used to determine whether a student qualifies to be admitted to a school or college of education.

The second test, PRAXIS II (previously known as the National Teachers' Exam or NTE) assesses preservice teachers' knowledge of subject matter and general professional knowledge. However, with the approval of the new Ohio standards, a third and quite different test will be added.

PRAXIS III was designed to serve as the third and final step in the teacher testing and licensing process. In this final step, beginning teachers will be required to demonstrate professional competence across a range of performance based standards. The process of developing a performance based assessment system for classroom teachers has been a major research and development initiative. ETS involved "literally thousands of educators from around the country and devoted seven years" to the development process (Danielson and Dwyer, 1995). Teachers across disciplines and grade levels were surveyed about the importance of their work. These results were correlated and analyzed to develop an initial set of performance based standards or criteria. These criteria were subsequently field tested, analyzed, and rewritten several times. The resulting criteria were then field tested in a variety of educational contexts. Throughout the pilot testing,
interviews were conducted, and data collected in an effort to validate the criteria in the wisdom of practice as well as the relevant research.

In the fall of 1992, the nineteen performance criteria were organized into four categories named "domains" (see Appendix) and were prepared for pilot testing by selected states for consideration in their teacher licensure process (Dwyer, 1993). The four domains, or performance based areas are Domain A: Organizing Content Knowledge for Student Learning; Domain B: Creating an Environment for Student Learning; Domain C: Teaching for Student Learning; and finally Domain D: Teacher Professionalism.

Domain A is primarily concerned with how the teacher thinks about the content to be taught. This thinking is evident in how the teacher organizes instruction for the benefit of her or his students. In Domain B the criteria relate to the social and emotional components judged to be prerequisite to academic achievement. Focusing on the act of teaching and helping students to connect with the content is the goal of Domain C. Finally, Domain D requires that teachers reflect on their own instructional effectiveness and connect to other members of the school community including parents (Dwyer, 1994). Four to five criteria are found in each domain and provide more description and structure to each of the four domains.

Considering the substantive changes in teacher licensing described above, it is evident that teacher preparation programs in Ohio will have an obligation to prepare their graduates to successfully meet the challenges
presented by the new standards. In fact, program redesign efforts are already underway at many teacher education institutions. Many schools, colleges, and departments of education, including the University of Dayton, are exploring a variety of ways to integrate the PRAXIS III criteria into the teacher education curriculum. Such ways include having preservice students develop professional portfolios structured around the PRAXIS III criteria; using the criteria as reflective prompts in case study analysis; requiring preservice teachers to use the criteria as observational guides in their early field experiences; and finally, using the PRAXIS III criteria in evaluating the student teaching experience.

Regarding the later item of student teacher evaluation, it is important to note that the PRAXIS III teacher assessment system was designed to be used only as a teacher licensing tool. PRAXIS III assessors must complete a rigorous, six day training program and pass an assessor proficiency test in an effort to insure accuracy and reliability in using the PRAXIS III scoring system. Recognizing the need to create a teacher assessment system that was more formative in nature, ETS developed the PATHWISE teacher assessment program. PATHWISE is the formative assessment equivalent of PRAXIS III and was developed as a coaching tool for use by campus supervisors, cooperating teachers, and mentor teachers seeking to support the professional development of preservice or entry-year teachers. One of its most promising applications can be found in the student teaching experience, and it is with that application that this study was concerned.
Given this background, there were four reasons that made this study relevant. First, student teaching can be a challenging process for many pre-service teachers and in the not too distant future, that challenge will be heightened by the student teacher’s knowledge that student teaching represents their last professional development opportunity to develop competency in the PRAXIS III performance criteria. In order to make student teaching the most meaningful learning experience possible, student teachers should be evaluated through the PATHWISE system which is based on the same performance criteria as PRAXIS III.

A second rationale for this study was that it recognized the potential value of having cooperating teachers, campus supervisors, and student teachers trained as PATHWISE assessors. PATHWISE training focuses on helping teachers, as well as teacher educators, understand and identify important elements of classroom teaching. If ETS is correct in its assertion that beginning teachers are “best served by a common understanding of the performance that is expected” (Educational Testing Service, 1995), then PATHWISE training would seem to be a logical component of the student teaching experience. This reason is especially relevant in that all study participants (student teachers, cooperating teachers, and campus supervisors) received the two day, PATHWISE training.

The acquisition of new cognitive structures, or schema, and the language to articulate the understanding inherent in the same, are not acquired in a two day training program. In order to internalize the nineteen
performance criteria, student teachers and cooperating teachers need to have multiple opportunities to apply the criteria throughout and across the student teaching experience. The third rational for this study was found in the fact that the intervention of the study provided a model of PATHWISE based, professional development experiences that can be used during the student teaching experience.

The fourth and final reason for this study was based on this researcher's belief that campus supervisors, cooperating teachers, and student teachers would all benefit from arriving at a common understanding of what constitutes competent practice in novice teachers. One way in which such a common understanding might manifest itself is in the acquisition of a common language of professional practice. Acquiring and using a common professional language could potentially assist in bridging the current gaps between university and school, professors and teachers, and perhaps most important of all, between expert and novice practitioners.

The need for the common understanding and language described above is clearly heightened by the fundamental changes occurring in teacher licensing described earlier in this chapter. As Ohio schools and teacher education institutions prepare for the implementation of the new standards, many problems inherent in the change process can quickly distract attention from the potential benefits of such change. Now, for the first time, a framework (PRAXIS III) will be in place that will allow all
parties concerned with teacher preparation to be on the same page thus providing consistent feedback to the student teacher.

The four rationale articulated in the preceding paragraphs established the need for the proposed study. When that need is combined with the fact that very little research has been done on the effects of using the PATHWISE teacher assessment system in the student teaching setting, the potential significance of the study becomes apparent.

**Purpose of the Study**

The purpose of this study was to describe the effects of using the PATHWISE teacher assessment system on three, elementary student teachers and their cooperating teachers. More specifically, the study focused on whether the systematic use of the PATHWISE program during the student teaching experience might influence the subjects' acquisition of a more common professional language.

**Limitations**

The limitations of this study revolved around variables that occur in classrooms that were beyond the researcher's control. Predictably, the student teachers had different experiences because of their exposure to different students, situations, and environments. They also had a variety of exposures based upon the different cooperating teachers that supervised them throughout this process. The student teachers involved may also have acquired professional language as a result of exposure to other veteran
teachers in the school setting and in university classes. The researcher acknowledges the limitation of controlling the environment of the subjects in between the time of the administration of the pretest and posttest measures.

Definitions of Terms

Criteria refers to a standard, rule, or test on which a judgment or decision can be based.

Domain relates to a sphere of activity, concern, or function.

Praxis, by definition, is the exercise of an art, science, or skill; the practical application of a branch of learning.

PATHWISE is an assessment tool for the evaluation of the classroom performance of student teachers and first-year teachers. It is grounded in nineteen essential teaching criteria, a foundation supported by significant research and consensus of hundreds of professional educators from around the country. PATHWISE is infused with a multicultural perspective and is based on a constructivist view of learning and teaching (Educational Testing Service, 1995).

PRAXIS III is a system to assess classroom teachers during their first year(s) of professional practice. It uses direct observation of classroom teachers, review of written work, and personal interviews. PRAXIS III is also
supported by significant research from hundreds of professional educators from around the country.

Related construct, for the purpose of this study, refers to a synonymous term that is directly related to an identified vocabulary term from the PRAXIS III/PATHWISE framework without using the exact word.

Total language score refers to the combination of points received from both the related construct matches as well as the vocabulary matches in the data analysis.

Vocabulary match, for the purpose of this study, is defined as a key word in the PRAXIS III/PATHWISE framework that has been used by a subject in describing the teaching and learning environment as represented on the videotape used as the writing stimulus.
CHAPTER II

REVIEW OF THE RELATED LITERATURE

The development and use of a professional language is a critical factor in many professions. Each area owns key phrases and words that are understandable to the group members. For example, using the term "sunny space" with an architect can mean a totally different thing than using such a term with someone not familiar with the professional language of architectural design. Each profession or "culture" defines for itself terminology and meaning that is shared and understood among its members, but not necessarily among those not belonging to the group.

Many have studied the use of such a professional language, and how one goes about acquiring such a language. The work of Robert Yinger, for example, has focused on how professional language is developed by architects and teachers. How language acquisitions occurs and how it relates to the successful development of this professional language is critical to Yinger's work as well as this study. Language, as defined by Yinger, includes the "vocabulary and jargon that practitioners use within a profession. It more importantly refers to the modes of thinking and acting employed by practitioners to effectively accomplish the tasks at hand" (Yinger, 1987). This language that Yinger refers to is not only a spoken language, but one that includes mental thought. It includes behavior, activities, and routines.

Yinger has identified three key components to successful language acquisition. First, individuals must have "examples of appropriate and effective action." They also need to "collect information about when a certain action is appropriate." Finally, the individual needs to reflect on the
information and integrate the language into their own understanding. (Yinger, 1987). For these three things to happen, Yinger notes, individuals must have opportunities to practice. They must take the new knowledge that they are gaining, manipulate it, make it their own, and then reapply the knowledge in future applications.

In relation to Yinger’s work, Christopher Alexander writes and describes the concept of a pattern language. Alexander argues that individuals create their own pattern, unique, but with possible similar themes to others with shared experiences. This pattern language emerges each time a situation arises that demands thought. The individual refers back to previous experiences and stored patterns to determine present decisions. Thus, the pattern language changes and develops with each new experience. These pattern languages, Alexander argues, define and develop a “framework, a type of theory, and a means for organizing and representing the world.” This framework is used for “representing or talking about how they think about the world. It is to be a means for people to begin developing a language of their own.” (Alexander, 1979).

As Shulman (1987) reinforces, the importance of developing teachers’ professional language should not include training to work in a set order, but instead training to think and reason about their teaching in order to teach successfully (Darling-Hammond, 1989). Studying the research of Yinger and Alexander, one can quickly see the implications for teacher education. As Yinger states, “learning the language of practice is not really possible until a beginning teacher actually engages in teaching” (Yinger, 1987). Consequently, medical, legal, engineering, and teacher education programs have historically relied on internships, practicums, student teaching, or other practical experiences to enhance the learning process.
Research shows that the schematic framework for novice teachers is significantly different than that for expert teachers and that development (or lack of development) directly impacts teaching thus proving the importance of developing a professional language for teachers (Hammrich, Bonozo, & Berliner, 1990). Teachers cannot be successful without the development of a professional language, and do not have the opportunity to do so without an appropriate environment in which language acquisition can occur.

Some key concepts already emerge from these important pieces of literature. First, each profession determines for itself a “culture” in which a common language is used and understood. In that common language are patterns of use that are defined by previous and occurring experiences. And finally, beginning persons need support and structure to allow for successful development of language patterns and integration of the professional language. In understanding professional learning and the importance of language development for teachers, individuals can provide support and structure for those learning to teach (Calderhead, 1989).

**Performance Based Teacher Assessment: The Praxis III Framework**

Such support will be necessary for future, beginning teachers as movement for change in beginning teacher assessment becomes reality in the near future. Changes in teacher assessment for beginning teachers became highly needed after the release of the national report *A Nation at Risk* which stated the need to examine closely, and strengthen the quality of beginning teachers (Sanders, 1993). As a result, state mandates over teacher assessment and evaluation are rapidly growing with an emphasis no longer on pencil and paper tasks, but on actual classroom performance assessment.
Teachers, for example, in the state of Ohio will no longer be issued a certificate to teach upon completion of a certification program. Instead, they will be given a temporary license, until they pass a performance based assessment, in which they demonstrate competent teaching.

Such an assessment tool has been created by the Educational Testing Service (ETS). The Educational Testing Service has developed a system to support beginning teacher assessment, through extensive research called the Praxis Series: Professional Assessments for Beginning Teachers (White, 1992). As was previously discussed in Chapter One this third and final part of the series was created within a four domain framework of what good teaching includes. In order to support beginning teacher assessment beyond their first year, PRAXIS III/PATHWISE and the domains and criteria were created with the requirements of the National Board for Professional Teaching Standards as a focus. At the present time, six states are using the PRAXIS III system to support pre-service development, beginning teacher assessment, and/or licensing decisions (Danielson & Dwyer, 1995).

The structure of the PRAXIS system is four domains that create a framework to support beginning teacher assessment. The four domains are: Organizing Content for Student Learning; Creating an Environment for Student Learning; Teaching for Student Learning; and Teacher Professionalism. PRAXIS III/PATHWISE supports a beginning teacher’s assessment by defining the structure of each domain with four to five criteria. These domains and criteria were created not from the Educational Testing Service’s ideas of good teaching, but from thousands of teachers and researchers in order to develop a comprehensive view of what defines “good” teaching. (Danielson & Dwyer, 1995).
Each of the nineteen criterion incorporated into the four domains were developed to reflect an important component of classroom teaching. Each criterion is designed with maximum flexibility, as it can be applied to any classroom at any grade level. These criteria were also developed from a multicultural perspective, based upon the understanding that successful teaching requires knowledge and understanding of students' background and experiences. A brief description of each domain follows.

**Domain A: Organizing Content Knowledge for Student Learning** This domain focuses on how teachers apply their knowledge of students into their learning goals and instructional methods. Also critical in this domain is the critical thinking of teachers as they organize the learning process for their students and plan to teach the determined goals effectively.

**Domain B: Creating an Environment for Student Learning** This domain and its related criteria deal with the interpersonal and physical environments of the classroom including the emotional relationships between students and teacher. In this domain, the teacher must focus on her relationships with students and how to make the learning environment a successful one.

**Domain C: Teaching for Student Learning** In this domain, teachers teach what they have planned, helping students to understand and relate to the content being presented. Teachers monitor and assess to assure that learning is taking place for all students. Teachers also make sure in this domain that time is being used effectively.

**Domain D: Teacher Professionalism** In the final domain, teachers are expected to demonstrate their professional growth as it relates to the following factors. They must demonstrate the ability to successfully reflect on a lesson, as well as identify components to be improved upon in future
lessons. This domain also includes an emphasis of working with families and colleagues to support learning to meet the diversity of student needs.

For the purpose of this study and this review of the literature, Domain B and Domain C will be reviewed to provide background knowledge as they relate to the design of the data collection process and data analysis procedures. Each domain is briefly reviewed followed by a more detailed description of each criterion in that domain. Vocabulary matches and related constructs that were used for future data collection purposes are also identified for each criterion.

**Domain B: Creating an Environment for Student Learning**

Domain B has at the heart of its criteria, the human interactions as they relate to learning. Teachers must draw on their knowledge on human relationships and build within their classrooms a community where learning can take place. This community is characterized by respect, rapport, and fairness. The B Domain consists of five criteria.

**Criterion B1: Creating a climate that promotes fairness.** Fairness in this usage refers to providing for each and every student's self worth and value within the classroom community. The teacher becomes a model in fairness as s/he deals with each student. As Brophy reports, “effective teachers manage their classrooms so as to create a climate that fosters fair and equitable interactions” (1987). This emphasis on fairness provides the foundation for a positive self concept and provides motivation for responsible and moral behavior. Fairness is a “major contributor to improving the classroom climate and positively affecting student learning” (Villegas, 1992).
Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
- fairness

**Related Constructs:**
- Equity, equitable
- Impartial
- Just, justice

**Criterion B2: Establishing and maintaining rapport with students.** The teacher in this criterion must relate positively with students. Teachers might develop rapport through the appropriate use of humor, sincerity, concern, etc. Teachers can also build rapport through eye contact, appropriate proximity, and smiling. Also appropriate to building rapport is the teacher’s interest in students uniqueness and individuality. To build relationships a teacher can “get to know” each student and their interests. Rosenshine’s research supports the need of teacher enthusiasm with a positive classroom environment and consequently higher student achievement (Rosenshine, 1971).

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
- establishes rapport
- maintains rapport

**Related Constructs:**
- interpersonally effective
- teacher warmth
- positive student/teacher relations
Criterion B3: Communicating challenging learning expectations to each student. The teacher in this criterion clearly articulates to each and every student that they CAN learn. Given that there will be a variety of learning abilities in each classroom, the teacher adjusts according to each student’s capabilities, providing challenging expectations appropriate for each and every member of the classroom community. In this way the teacher allows each student to perform to the highest level that they can, and instill a sense of pride for accomplishments well done. In a U.S. Department of Education report, *What Works*, it was found “that among the most important characteristics of effective schools is high teacher expectations for student achievement” (1987). Holliday also reported in 1985 that African American children’s “academic achievement was more significantly affected by the teacher’s perception of their ability than by their own self-perception.” Other studies have found that minority children are more dramatically affected by low expectations than are non-minority students (Baker, 1973). This criterion is critical for both teacher and student success.

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
- challenging expectations
- high expectations

**Related Constructs:**
- teacher expectations
- stretch goals
- high performance standards

Criterion B4: Establishing and maintaining consistent standards of classroom behavior. Developing a climate for learning forms the foundation for this criterion. The structure of the standards may vary widely for various classrooms, but once established are consistently and
fairly enforced. It is not assumed that children will behave once such standards are in place. However, it is important for the teacher to remain positive and deal with infractions according to classroom policy. Establishing clear guidelines for student behavior has been proven to lead to less disruptive behavior and increase student learning (Herman and Tramontana, 1971). Doyle reported in 1976 that "the tasks of promoting learning and order are closely intertwined"

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
- establishes consistent standards (rules of classroom behavior)
- maintaining consistent standards (rules of classroom behavior)

**Related Constructs:**
- appropriate classroom climate
- climate conducive to learning

**Criterion B5: Making the physical environment as safe and conducive to learning as possible** In this area, the teacher plans and matches the learning that needs to take place with the physical environment. Teachers must reflect on how to provide the safest environment for students with various needs. Also included in this area is the attractiveness of the environment. This incorporates displays, charts, bulletin boards, etc. that create an overall environment that supports student learning. Good and Brophy (1986) report "a positive relationship between student engagement in learning and a well-arranged learning environment." In a similar study Morine-Dershimer (1977) has shown that teachers who knowingly attend to "the physical characteristics of their classrooms have students with higher
achievement levels than teachers who do not attend to this aspect of classroom life."

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
- physical environment
- (safety/instruction)
- physical setting
- (safety/instruction)

**Related Constructs:**
- classroom arrangement
- context (classroom; physical)

**Domain C: Teaching for Student Learning**

As previously discussed, Domain C focuses on the art and science of teaching; the actual act. In this domain, teachers “help students to connect with the content” (Dwyer, 1994). Teachers take into consideration all that they have learned about their individual students, and relay information to them that is meaningful and understandable. They monitor students, evaluate learning, and assess that time is used well. The C Domain consists of five criteria.

**Criterion C1: Making learning goals and instructional procedures clear to students** Students need to know that instruction is purposeful as is illustrated in this criterion. The method of conveying this to students whether explicit or implicit, is necessary. Instructional procedures are also critical for successful teaching and learning. Teachers may choose a variety of ways to communicate these procedures, but they must be clear. Both areas of this criterion critically rely on clear communication. Research has linked teachers’ clear directions with student accountability and conduct
(Putnam, 1979). Research in human learning also illustrates the need for individuals to know and see a purpose behind what they are learning.

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
clear learning goals
clear instructional procedures
clarity of goals
clarity of procedures

**Related Constructs:**
teacher clarity

**Criterion C2: Making content comprehensible to students** This criterion is related to Domain A where the teacher plans appropriate instruction. Now, in this criterion of Domain C, that planning is implemented. Students need to be engaged with the content on a level that the teacher deems appropriate. It is also highly important that the content being conveyed is connected to students' prior learning and what is already familiar to them. This is necessary to allow for connections and deeper understanding. Instruction should also be organized in a way that allows for student success (small group, individual, etc.). Shulman documents the importance of this criterion, "the key to distinguishing the knowledge base of teaching lies at the intersection of content and pedagogy, in the capacity of a teacher to transform the content knowledge he or she possesses into forms that are pedagogically powerful and yet adaptive to the variation in ability and background present by the students" (Shulman, 1987).

Vocabulary matches and related constructs that correlate with this criterion are as follows:
Vocabulary Matches:
content comprehensible/understandable
student comprehension/understanding

Related Constructs:
clarity of presentation
coherence of lesson structure
accuracy of content

Criterion C3: Encouraging students to extend their thinking

Encouraging students to think creatively, independently, and critically are all important areas in this criterion. Teachers must think about how to encourage students to go beyond the basics. Teachers must support students’ belief in themselves and build their confidence to create a safe environment for risk taking. A variety of instructional techniques can be used here, including open ended questions and problem solving situations with more than one right answer. Many of these opportunities arise unplanned in the teaching day and teachers need to stay aware of such opportunities and capitalize on them when they present themselves. Marzano, Brandt, Hughes, Jones, Presseisen, Rankin, and Suhor (1988) document that “teachers who want their students to think critically and creatively need to incorporate and cultivate these ways of thinking into their own behavior patterns.” This is a critical criterion for student success.

Vocabulary matches and related constructs that correlate with this criterion are as follows:

Vocabulary Matches:
extended thinking

Related Constructs:
critical thinking
higher order level thinking
independent thinking
creative thinking
Criterion C4: Monitoring students’ understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands. This criterion refers to the important work that must take place during the lesson to ensure that student learning is taking place. Teachers, especially in culturally diverse classrooms, must be aware of the variety of verbal and non-verbal feedback and how to use such feedback to adjust instruction. This criterion is critical, but can be highly difficult for teachers. They must first read the students feedback, reflect on that feedback, and then make necessary instructional adjustments. All this within as short of a time span as possible. Emmer (1982) reported that appropriate monitoring of student progress was directly related to the increase of student achievement. The U.S. Department of Education’s report *What Works* (1987) also named constructive feedback to students as a characteristic of effective teachers.

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**
- monitoring students
- providing feedback
- adjusting (changing) instruction

**Related Constructs:**
- reading students
- observing students

Criterion C5: Using instructional time effectively. Instructional time refers to the periods during the day that students are engaged in learning. Critical to success in this criterion is the pace of teacher instruction; too fast and students can be overwhelmed and stop trying. Too slow, and students will become bored and stop listening. Also critical to this criterion is the teacher’s ability to coordinate the day and limit the amount of
noninstructional time. Noninstructional time refers to school tasks (that are within teacher control), that must be done, but are not necessary for learning to occur. Successful teachers develop routines that limit the time lost on noninstructional tasks. As Anderson stated in 1986, “effective teachers plan, organize, and carry out lessons so that maximum time is spent on instruction.” Brophy (1987) also reinforces Anderson by stating, “research on teaching has established that the key to . . . successful instruction is the teacher’s ability to maximize the time that students spend actively engaged in worthwhile academic activities . . . and to minimize the time that they spend waiting for activities to get started, making transition between activities etc.”

Vocabulary matches and related constructs that correlate with this criterion are as follows:

**Vocabulary Matches:**

- instructional time

**Related Constructs:**

- time management
- learning time
- time on task

These domains and their related criteria provide a framework for both beginning and student teachers. A framework such as PRAXIS III could provide beginning professionals the fundamentals for their own patterns of language in the field of education, as documented by Christopher Alexander. In forming their own patterns of language, they then hold the keys to their own language of practice (Yinger, 1987). The following research study sought to discover if the PRAXIS III/PATHWISE framework could support student teachers in developing their professional language in the fourteen week experience of student teaching.
CHAPTER III
METHODOLOGY

This research study was designed to be a descriptive study aimed at exploring the effects of using the PATHWISE teacher assessment system on the professional language development of student teachers and their cooperating teachers. The subjects were pretested and posttested, thus the researcher used the T1 X T2 design (Isaac and Michael, 1995). T1 was used to measure the frequency of vocabulary matches and related construct matches a subject made when scripting, summarizing, and suggesting during the viewing of a videotaped lesson. X represented the independent variable treatment, which was the immersion of the subjects in a series of activities requiring or encouraging the use of language from the PATHWISE domains and criteria during the student teaching experience. T2 represented the posttest that measured the frequency of vocabulary matches and related construct matches to the PATHWISE language after the treatment was applied.

Subjects

The subjects for this study included three student teachers and three cooperating teachers. The student teachers were composed of two females and one male. All of the student teachers were seniors about to graduate with an elementary education degree and teacher certification from the
same private, midwestern university. The cooperating teachers for this study were all females. The cooperating teachers were all veteran teachers, with mean teaching experience of fifteen years. The following paragraphs give an overview of demographic information of the teams involved in this study. All three of the student teachers in this study were assigned to the same elementary school. To protect the privacy of the subjects, names have been changed.

**Tess and Vanessa.** During her college career, Tess was highly involved with campus activities and the local community. She has an advanced technology background and enjoys community volunteering. Vanessa, her cooperating teacher, is a veteran teacher of over twenty years. Vanessa is a published children’s author and makes writing a highly valued element in her classroom. She places high value on thematic teaching and meeting individual needs. Tess and Vanessa worked together in a third grade classroom.

**Brock and Nina.** Brock has a unique, and varied background. He enjoys classical music and loves to write, especially poetry. Running and biking are also hobbies close to his heart. Nina, Brock’s cooperating teacher, has been teaching for over twenty years. Brock and Nina taught together in a third and fourth multi-age classroom. She enjoys hands-on, real life, learning experiences and even creates a wax museum with her children each school year. Nina owns and operates a children’s book store in the
community. She is highly committed to employing high quality, children’s literature into her teaching.

Michelle and Diana. Michelle comes from a small, community in the Midwest. She, like Tess, was very involved in community volunteering and loves to spend her extra time with children. Her cooperating teacher, Diana, the least experienced of the cooperating teachers, has been teaching for five years. She work diligently to establish a well-defined sense of community in her classroom. She has taught a variety of grade levels, and at the time of writing, was completing her master’s degree. Michelle and Diana taught together in a fourth grade classroom.

Setting

The School

The school in this research study is situated in a small, rural community. The school is organized in a K-6 structure and has approximately three hundred students. Each classroom had 18 to 24 children. The school values a sense of community that is brought alive in each and every classroom. Trying new things is highly encouraged and risk taking is valued rather than avoided. The classrooms had a variety of learning needs as the school is committed to inclusion. The classrooms also had a variety of behavioral needs, and one classroom included a child who did not speak English.
The Community

The community where this study took place is the home of a small, liberal arts college. The population of the community is economically, racially, and culturally diverse.

Instrumentation

Instrument Construction

In an effort to determine if the subjects' professional language might be affected by the intervention of this study, pretest and posttest data collection processes were developed to measure the subjects' professional language usage. A simple data collection form (see Appendix), divided into three main categories was developed by the researcher. The three categories in the order of their appearance on the form, were:

1) notes
2) summary
3) suggestions

These three categories were created to mirror the three processes that constitute the PATHWISE observation system of scripting (notes), summarizing, and making suggestions to the developing teacher.

The notes section of the data collection form was parallel in purpose to the scripting section of the PATHWISE process. The word "notes" was substituted for scripting because the pretest data were collected prior to the subjects being trained in the PATHWISE system. The researcher assumed
that the subjects might be confused by the term scripting prior to being trained in the process. In the notes section, the participants were encouraged to write anything that they saw as relevant or that they thought would be beneficial when summarizing the teacher's performance or making suggestions to the observed teacher.

The summary section of the form was reflective of the second step of the PATHWISE process and was designed to be a summary of what was observed in the lesson. Finally, the suggestion section of the form was designed to model the third step in the PATHWISE process, writing suggestions for the observed teacher.

Data Collection

Administration of the Data Collecting Instrument

In order to obtain pre-intervention insight into the subjects' professional language, the subjects met on the same day and in the same physical environment to observe a videotaped lesson. Specifically, the six subjects viewed a videotape developed by Educational Testing Service. The video tape featured a male math teacher teaching a lesson on the process of elimination to a class of eighth grade students. It was approximately twenty-five minutes in length and was an actual lesson. Prior to viewing the tape, the subjects were given brief instructions in how to use the above described form to record notes on their observations, summarize their observations, and make suggestions to the observed teacher. The pretest
administration of this data collection process occurred prior to the beginning of the student teaching semester and prior to the subjects receiving PATHWISE training. The posttest administration, using the same data collection form, and the same video tape, was conducted fifteen weeks later at the conclusion of the student teaching experience.

**Treatment**

To begin the process, the six subjects were formally trained to use the PATHWISE assessment program. The training occurred over a two day period, six hours both days for a total of twelve hours of training. The training included an overview of the four domains as well as specific activities designed to teach an understanding of the domains and the criteria for each. The participants were given an overview of the PATHWISE process to give them an understanding of why the program was developed and how it is used in practice. They also viewed several videotaped lessons during the training to give an authentic experience in observing and scripting beginning teachers. The subjects were also given time throughout the training to work in cooperative groups and to share with each other their philosophies of education and beliefs about good teaching.

After the PATHWISE training, the student teachers began their student teaching experience. The PATHWISE forms developed by ETS were used when making observations of the subjects’ teaching. Each subject was observed at least five times by the campus supervisor using the PATHWISE
forms. The subjects were also observed using the PATHWISE process by their cooperating teacher at least three times. Finally, the three subjects conducted two peer observations of each other using the PATHWISE framework. The subjects also observed their cooperating teacher at least once using the PATHWISE framework.

Six of the weekly seminars were designed specifically around the discussion of a domain chosen by the subjects as being of particular concern given their experiences in the student teaching setting. During the seminars, the students were given reflective prompts to stimulate personal reflection and group dialogue. The midterm evaluation was also designed around the PATHWISE framework. These treatments were all designed with the common purpose of consistently exposing the subjects to the PATHWISE language in an effort to determine how they might influenced the development of the subjects' professional language.

Data Analysis

The primary data consisted of the pretest and posttest; notes, summaries, and suggestions that the six subjects completed. To analyze the data, a scoring system was created to measure the extent to which the subjects employed language related to the PATHWISE domains and criteria. It was determined that five points would be awarded each time an exact vocabulary match occurred. For example the sentence, “the teacher seemed to have established good rapport with the class,” would be awarded five
points for the use of the word rapport because rapport is a key term used in criterion B2. The scoring system also included a related construct match, which was awarded 3 points. An example of this match might be, “the teacher has a positive relationship with his students.” Prior to the analysis, the written descriptions generated by the Education Testing Service to define the criteria were carefully read. From this reading, the list of related constructs was generated for each criteria to maintain consistency throughout the scoring.

A form was then created to record the scores for each subject. The form was used to record the vocabulary match points, related construct points, and total points for each criterion. It also was used to total the points for each domain, as well as overall total points. After each subjects’ scores were recorded, data were combined to analyze student teachers’ scores, the groups of cooperating teachers’ scores, and the overall subjects’ scores.
CHAPTER IV

RESULTS

The data were organized to be presented in several different ways. First, the data were analyzed by total group, with all six subjects included. Next, the group was divided into two groups (student and cooperating teachers) to allow analysis of differences between the two groups. To illustrate this data, figures were used to show changes in the B and C Domains for the entire group and then for each individual group. Data also illustrates the changes in each pair of teachers who worked together. Analysis was also completed to compare the points received in terms of related construct and vocabulary matches. This analysis was completed to see if one area consisted of more points than the other. The total language score referred to in the data analysis is the combination of the related construct score and the vocabulary match score.

Language Acquisition in the B Domain

The Total Language Scores for both groups in the B domain, as illustrated in Figure 1, changed from a pretest total of 27 to a posttest total of 90. The greatest growth occurred around Criteria B3 (expectations) and B4 (behavior). Some small growth was evident in the use of language related to B2 (rapport) and B5 (environment). The fact that little growth occurred in the use of language related to criterion B1 (fairness) may have been due to the fact that the teacher in the video tape did not exhibit any unfair behaviors during the lesson.
FIGURE 1. Pretest/posttest total language scores for all subjects on the B domain.
The rather dramatic increase in the use of professional language from the B domain of the PRAXIS III/PATHWISE framework suggests that systematic exposure to, and repeated use of the criteria throughout the student teaching experience may influence the development of professional language. Fairness may have a low score in this data collection because the teacher in the video tape does not illustrate any documentable evidence during the lesson.

Figure 2 documents the differences between the cooperating and student teachers by examining their sub, and total posttest scores for the B Domain. In the posttest scores, the data show that the student teachers used the PATHWISE language from the B domain twice as much as the cooperating teachers (30 points versus 60 points). The student teachers had higher point scores in the areas of expectations (B3) and behavior (B4), while the cooperating teachers had higher point scores in the areas of fairness (B1) and rapport (B2). This may be explained by the fact that beginning teachers typically have greater concerns regarding behavior and expectations, while cooperating teachers, with veteran knowledge, have the ability to look for more subtle classroom elements such as fairness and rapport. Concerns relative to B Domain criteria, especially student discipline, were frequently the topic of interest in the weekly seminars. Consequently, a significant amount of time was dedicated to discussing these important elements, a fact which may also help explain the higher B domain scores for the student teachers.
FIGURE 2. Comparison of B domain total language scores for cooperating and student teachers.
In the C domain, the Total Language Scores changed from 38 to 151 on the pretest and posttest measures, a percentage increase of 297% as illustrated in Figure 3. The largest growth occurred in the criteria regarding goals (C1), extension of thinking (C3), and making content comprehensible (C2). Some growth occurred in the monitoring student performance criteria (C4) and the effective use of time (C5). The video tape used as the data collection stimuli featured a math instructor teaching a lesson on problem solving. The taped lesson involved numerous examples where student thinking was extended. However, the video lesson was a discovery lesson in mathematics designed to review prior material and raised a number of issues relative to making instructional goals clear. These factors likely explain the large growth in the C domain scores.

For the student teachers' midterm evaluation, they were asked to identify which domain they felt the most successful in, and which they felt needed the most improvement. Two of the three student teachers felt strongest in the B Domain and weakest in the C Domain. To help in this domain, the remainder of the weekly seminars integrated the C Domain in some way. This may also help explain the growth in the C Domain for the student teachers.

Again, in the C domain, the Total Language Scores show that the student teachers used the PATHWISE language twice as much as the cooperating teachers on the posttest measure. The student teachers
FIGURE 3. Pretest/posttest total language scores for all subjects in the C domain.
employed more PATHWISE language in the areas of goals (C1),
comprehension (C2), extension of thinking (C3), and use of instructional
time (C5). The two groups had the same point score in the area of
monitoring students (C4). Figure 4 illustrates these results.

Beginning teachers are often very focused on how to use their
instructional time, which may account for their attention to the use of
instructional time by the math teacher. The student teachers also
documented the teacher's use of goals in his lesson over twice as much as
the cooperating teachers, which may again indicate an areas of
concentration for the present developmental stage of the student teachers.

When analyzing just the student teacher data, significant change can
be documented. As Figure 5 shows, the total language score changed from a
27 to a 163. This represents a change of 136, or a percent increase of 504%.

Each student teacher however, changed in varying degree. Michelle,
for example, had the greatest change, growing from an 11 point score to an
81. Tess changed from 8 to 53, and Brock grew from 8 to 29. Michelle was a
very serious student who took on her various responsibilities with a one
hundred percent effort. Tess also took her student teaching responsibilities
quite seriously. Brock, despite his potential, unfortunately developed
doubts about his desire to teach during his student teaching experience. As
a result, he became quite distracted and this factor may have contributed to
his lower score.
FIGURE 4. Comparison of C domain total language scores for cooperating and student teachers.
FIGURE 5. Changes in individual student teachers' language
While all the student teachers showed a great deal of growth, the results were not the same for the cooperating teachers (see Figure 6). While Diana grew a great deal (35 points), Nina grew only five points, and Vanessa stayed exactly the same showing no growth in language acquisition. Adding the scores together, a composite change occurred from a score of 38 to 78, a percentage change of 105%.

Assuming that a professional framework can help beginning teachers, this may explain why Diana grew the most, having the fewest years of experience. In contrast to Diana, Vanessa had the most years of experience, which may explain why her points did not change. Nina did grow by five points, but also having many years of experience her professional framework may already be defined and developed in its own way. Nina was also the cooperating teacher for Brock, the student who had difficulty student teaching. As a result, her attentions may have been in other places rather than in focusing on the PATHWISE framework.

Overall, considering both domains, the six subjects changed from a Total Language pretest score of 65 to a Total Language posttest score of 241. These statistics show a change of 271%. Examining Figure 7, however, it is evident that each team grew at a different rate. Michelle and Diana, as a team, employed the PATHWISE professional language the most in the posttest data collection. On the other hand, both Brock and Nancy employed the least amount. Closer examination of Figure 7 suggests that
FIGURE 6. Changes in individual cooperating teachers' language.
FIGURE 7. Comparison of cooperating and student teacher team growth in language acquisition.
the amount of professional language used by the cooperating teacher was proportionate to the amount used by the student teacher.

The team of Michelle and Diana used the greatest amount of PATHWISE language. Again, this team was composed of a very serious student teacher and the youngest cooperating teacher who was at the time finishing her master's degree. Tess and Vanessa had the second highest scores. Vanessa, the most veteran teacher, maintained the exact same score that she received on the pretest measure. Her student teacher, however, did increase her score by 45 points. Brock and Nina, as a team, had the lowest score. Remembering however, that this team dealt with very serious issues during the student teaching experience, it is possible that attention was directed to many other areas than the PATHWISE framework. Both members of this team did grow, however. Nina increased her score by five points, and Brock increased his score by 21 points.

The data were also analyzed to look for significant changes in terms of the vocabulary matches and related constructs. A pretest/posttest comparison was conducted to see if the percentage of increase was higher in one area more than the other. The percentage of change for all six subjects in terms of vocabulary matches increased by 229%, as Figure 8 shows. For related constructs, Figure 9 illustrates that the six subjects had a 320% increase. Thus, both vocabulary matches and related constructs contributed to the total point scores, and not one being significantly more than the other.
FIGURE 8. Percent change in use of vocabulary matches.
FIGURE 9. Percent change in the use of related constructs.
Both Figure 8 and Figure 9 illustrate change for both groups. The cooperating teachers grew a little over 100% in both areas (related construct and vocabulary matches), while the student teachers grew over 350% in both areas. Thus the large increase in score was due predominantly to the growth in the student teachers’ scores.

Illustrating the change most clearly, are the pie graphs in Figures 10 and 11. On the pretest measure, the cooperating teachers were responsible for 58% of the matches, while the student teachers were responsible for only 42% of the matches. However, on the posttest measure the cooperating teachers were responsible for only 32% of the points, while the student teachers were responsible for 68% of the total points scored.

Importantly, it should be emphasized that the student teachers were more involved in the intervention that were the cooperating teachers. More specifically, the student teachers had weekly seminars oriented around the PATHWISE framework. They also had five formative observations that used the PATHWISE process and paperwork. Some of these differences may account for the overall greater increase on the student teachers part in adopting the PATHWISE professional language.

Figure 12 shows the comparative changes in professional language usage for both groups. This figure illustrates clearly the increase for the cooperating teachers in terms of using the PATHWISE professional language, and more dramatically the change for the student teachers. As was first mentioned, the
FIGURE 10. Percentage of matches by group in the pretest.
FIGURE 11. Percentage of matches by group in the posttest.
FIGURE 12. Overall change in the use of PATHWISE professional language.
student teachers had the intensive intervention that may have contributed to their dramatic increase of PATHWISE professional language usage when compared to the cooperating teachers.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to provide a summary of the study, and to report conclusions. This chapter also makes recommendations for practice and recommendations for future research.

Summary

As teacher licensure regulations change, student teachers and beginning teachers will require assistance to support them throughout the newly formed process. Chapter One provided the background of these changes, discussing in detail licensure changes and the consequences that these changes will have on future teacher education graduates. The purpose of this study was to explore the effects of using the PATHWISE teacher assessment system with three, elementary student teachers and their cooperating teachers. More specifically, the study focused on whether the systematic use of the PATHWISE program during the student teaching experience might influence the subjects’ acquisition of a more common professional language.

Chapter Two reviewed the literature related to the development of a professional language and the patterns of language that may result. The work of Robert Yinger was first discussed providing the foundation for the discussion of the professional language integral to this study. The development of the Educational Testing Service’s PRAXIS III/PATHWISE
framework was then reviewed as an example of a professional language framework. The criteria that compose the B Domain of the PRAXIS III/PATHWISE framework were then reviewed in detail. The B domain was then followed by a review of the C Domain. These two domains provided the foci of data collection for this study.

Chapter Three discussed the methodology used to determine the growth that a professional language framework would have on the six subjects, three cooperating teachers and three student teachers. This descriptive study explored the effects that the PATHWISE teacher assessment system framework would have on the professional language development of student teachers and their cooperating teachers. The subjects were pretested and posttested to gather data on the difference that the PATHWISE framework might make in their use of a common professional language.

Finally, Chapter Four analyzed the data collected and reported the data in several figures. First, the data were analyzed with all six subjects in one group, in terms of both the B and C domains and in pre and posttest changes. The groups were then divided (student and cooperating teachers) to allow analysis of differences of change between the two groups. Bar, line, and pie graphs were used to report the data in a clear format.
Conclusions

Exposing the cooperating teachers and the student teachers to the PRAXIS III/PATHWISE framework during the student teaching experience, as described in this study, may assist both novice and veteran teachers in acquiring a common professional language.

As illustrated in the data and figures provided in Chapter Four, all six subject increased the amount of professional language that they used between the pretest and posttest collections. Although the amount of change was different for each individual, the experience did have a positive growth effect upon each subject. These results suggest that the PATHWISE framework, as introduced through the intervention in this study, may assist student and cooperating teachers in acquiring a common professional language.

Student teachers may be more likely to adopt the language of the PATHWISE framework than veteran teachers.

Although each subject grew, the amount of growth experienced by the student teachers was significantly higher than the cooperating teachers. The student teachers may have been more open and receptive to the PATHWISE framework, having no other model and less classroom experience from which to draw. The cooperating teachers, as veterans may have previously developed their patterns of language and therefore not have been as receptive to the PRAXIS III/PATHWISE language framework.
A student teacher's openness to acquire the professional understandings reflected in the use of professional language may be influenced by the developmental level of the student teacher, including factors of maturity and commitment.

Each of the student teacher's data illustrated growth. However, this growth occurred at a high level for two students, and a considerably smaller level for the third student. The student with the smaller growth percentage was distracted during the student teaching experience with personal and professional conflicts. At the end of the student teaching experience, this individual determined that the classroom was not the place for a lifetime career. It therefore, may be concluded, that the level of professional language acquired may be affected by the maturity and commitment of the participants to the professional development of language and their own professional growth.

Recommendations

Recommendations for practice

Upon reviewing the data collected and analyzing its results, the researcher has several recommendations for practice. First, it is recommended that schools, colleges, and departments of education consider PATHWISE training for its student teachers as well as the cooperating teachers and campus supervisors. The resulting common language would
provide continuity and common understanding between all members of the student teaching experience. This training would also provide each student teacher a professional language framework from which to operate from the very beginning of their teaching experience. Developing and socializing the student teachers to value peer observation can also be a resulting consequence.

It is also recommended that the PATHWISE framework be integrated into teacher education programs to provide continuity for students and faculty throughout students' years at the university. In this way the students will also be able to contribute more to the student teaching experience and their acquisition of a professional language because of prior exposure and experience.

Student teachers self assessing themselves using the PATHWISE framework is another recommendation that the researcher suggests. In this way the students' can further internalize the PATHWISE language and the importance of self assessment in terms of personal growth.

A primary value of the PATHWISE system is its capability to facilitate conversation between novice and expert practitioners. Consequently, the researcher recommends that cooperating teachers and campus supervisors give consideration to the PATHWISE framework for providing a structure from which to develop student teaching seminars and support sessions.
Recommendations for future research

It is recommended that a study be designed to further explore if the amount of professional language growth is proportional to that of the cooperating teacher's growth. The data collected in this study indicates that the growth per team was in proportion to the other member. Further research needs to be conducted to explore this possible relationship.

A comparative study should also be designed and completed adding a control group. This would allow for data to be collected between a group immersed in the PRAXIS III/PATHWISE language and a control group not exposed to the PRAXIS III/PATHWISE framework and language.

The professional development of classroom teachers is undergoing significant revision. The recent change in standards for teacher licensure and development in Ohio represent one example of that change. Inherent in such a change is the opportunity for the improvement of teacher development. Given the fact that Ohio will most probably adopt PRAXIS III as a means of teacher assessment, it is this researcher's hope that this study contributes to an enhanced understanding of how the performance based criterion that constitute the PRAXIS III/PATHWISE framework can facilitate the student teaching experience. This experience can then facilitate and lead to the professional growth evidenced in the acquisition of a common professional language.
APPENDICES
### Domain A - Organizing Content Knowledge for Student Learning

| A1 | Becoming familiar with relevant aspects of students' background knowledge and experiences |
| A2 | Articulating clear learning goals for the lesson that are appropriate for the students |
| A3 | Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future |
| A4 | Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate for the students and that are aligned with the goals of the lesson |
| A5 | Creating or selecting evaluation strategies that are appropriate for the students and that are aligned with the goals of the lesson |

### Domain B - Creating an Environment for Student Learning

| B1 | Creating a climate that promotes fairness |
| B2 | Establishing and maintaining rapport with students |
| B3 | Communicating challenging learning expectations to each student |
| B4 | Establishing and maintaining consistent standards of classroom behavior |
| B5 | Making the physical environment as safe and conducive to learning as possible |

### Domain C - Teaching for Student Learning

| C1 | Making learning goals and instructional procedures clear to students |
| C2 | Making content comprehensible to students |
| C3 | Encouraging students to extend their thinking |
| C4 | Monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands |
| C5 | Using instructional time effectively |

### Domain D - Teacher Professionalism

| D1 | Reflecting on the extent to which the learning goals were met |
| D2 | Demonstrating a sense of efficacy |
| D3 | Building professional relationships with colleagues to share teaching insights and to coordinate learning activities for students |
| D4 | Communicating with parents or guardians about student learning |
Notes
BIBLIOGRAPHY


